

**SYSTEM AND METHOD TO PERFORM DC
COMPENSATION ON A RADIO FREQUENCY
BURST IN A CELLULAR WIRELESS NETWORK**

ABSTRACT

A method to perform DC compensation on a Radio Frequency (RF) burst transmitted between a servicing base station and a wireless terminal in a cellular wireless communication system that first receives the RF burst modulated according to either a first or second modulation format. Samples from the RF burst, or taken from the training sequence, are
5 produced and averaged to produce a DC offset estimate. The DC offset estimate is then subtracted from each of the samples. The modulation format of RF burst may then be identified from the samples. Depending on the identified modulation format, the DC offset estimate may be re-added to the samples when a particular modulation format is identified as the modulation format of the RF burst. This decision is made based on how well various components within
10 the wireless terminal perform DC offset compensation.